STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Dr. G. A. (Jim) Shirazi, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

May 9, 1983

Mr. Wilford Ruf
Crater Exploration, Inc.
954 East 7145 South, Suite 202
Midvale, Utah 84047

RE: Permitting
CATO Placer Sand #1
ACT/019/017
Grand County, Utah

Dear Mr. Ruf:

Enclosed are requests for further information and clarification regarding the Mining and Reclamation Plan for the CATO #1 placer operation. These questions and comments were developed from information submitted in an April 13, 1983 Crater Exploration letter and in a meeting between yourself, Lee Cox, Frederick Rogers and Division staff.

Please respond to each item and arrange your response by rule number, as outlined in the enclosed document. A prompt and thorough response is needed so that the plan may be considered for tentative approval and the reclamation surety can be evaluated as soon as possible.

Sincerely,

JAMES W. SMITH, JR.
COORDINATOR OF MINED
LAND DEVELOPMENT

JWS/SCL:btb

Enclosures

cc: S. Linner, DOGM
T. Portle, DOGM
W. Hedberg, DOGM
P. Grubaugh-Littig, DOGM

RESPONSE TO RESUBMITTAL

Crater Exploration, Inc.
CATO Placer Sand #1
ACT/019/017, Grand County, Utah

Rule M-3(1)(c) - DWH

The previous completeness review performed by the Division requested a buffer strip designation from the operator. The latest resubmission provides a map with a 20 foot and 100 foot line along the river bank. This is somewhat confusing.

Please provide a narrative which describes how each line should be interpreted. The operator should also describe the general types and locations of ancillary facilities and mining equipment which will be used on site (i.e., buildings, equipment storage areas, power lines, fuel tanks, processing equipment, etc.).

Rule M-3(1)(h), M-10(11) - DWH

The operator still has not discussed how surface drainage and sediment loss will be controlled from the site pursuant to form MR-1, page 3, #13(E).

This information should include the methods to be utilized (i.e., settling basins, berms, silt fences, straw bales, diversion ditches, culverts, etc.), as well as a topographic map of adequate scale showing the drainage patterns of the land to be affected including the directional flow of all surface waters (indicate by arrows).

Rule M-3(1)(h), MR-1, #15(D) - DWH

The operator has stated in the resubmission that there is a possibility that a discharge from the tailings pond to the river could occur. This may require a water quality certification and/or NPDES permit from the State Department of Health. The operator is advised to contact the Bureau of Water Pollution Control for direction in this matter.

The operator should also revise the permit application to delete the use of lined (sealed) tailings ponds if this is no longer the case (pursuant to May 2, 1983 meeting with the Division).

40-8-13(1) - DWH

The operator has not furnished evidence in the form of acceptable insurance policies or other factual data that he will be financially responsibile for payment of off-site public liability or property damage during mining operations. This information is still necessary before final approval can be issued.

40-8-17(1), MR-1, #16 - DWH

The operator should provide a copy of the approved change of water use application as obtained from the State Engineer's Office.

Also, the operator should contact the Army Corps of Engineer's Office for a determination as to the need of a 404 permit ([801] 524-6015).

Topsoil Removal

Rule M-10(14), M-3(1)(f) - TLP

Contraditions as to the depth of available topsoil appear in the Mining and Reclamation Plan (MRP). Under Item 21B, 25 feet of soil is said to be available while under Items 23B, 1 foot and 23C, 15 inches are cited. Please clarify.

Laboratory tests will aid: in detecting any soil physical or chemical conditions which may be detrimental to plant growth; and to provide any nutrients shown to be deficient and to define the baseline situation. These tests should include, but not be limited to, soil texture, pH, organic matter, electrical conductivity, SAR (Sodium Absorbtion Ratio), available nitrogen, available phosphorus (percent or ppm), available potassium, soluble calcium, magnesium and sodium (expressed as meq/100 g).

Storage and Protection of Topsoil

Rule M-10(14), M-3(1)(g) - TLP

Please provide a narrative sufficient to relate the mining sequence to soil storage, soil mixing and contemporaneous reclamation as discussed on May 2, 1983.

This information should be correlated with the submittal of a best estimate on the amount of acreage to be disturbed on a year-by-year basis. This should be tied in with estimates of how much area will be reclaimed per year and how long topsoil will be stored in an unreclaimed state (i.e., on ponds), if applicable.

Topsoil Redistribution

On attachment #(1), item 26, the applicant alludes to contemporaneous reclamation (reclamation shortly following mining) by indicating that topsoil will be replaced "three to four weeks" after sand replacement over bedrock (1). Please exapnd on this approach to reclamation. Where would this occur? These locations should be indicated on a map. Please tie this in with the narrative requested above.

The applicant currently states that specific fertilization applications will occur (page 8, Item 23[c][3]). This is acceptable by way of a general guarantee but should be refined as per the results of soil testing. Potassium should be included in the fertilizer mix unless tests or literature prove otherwise.

The applicant will work with the Soil Conservation Service (SCS) on testing soil prior to revegetation efforts and amending the soils as per results of these tests. Sampling should include available nitrogen, phosphorus and potassium as well as pH and EC. Please have the SCS include these tests as well as any others they deem necessary. A letter from the SCS on the working relationship, objectives and protocol employed on this project is necessary.

A "test plot" approach to revegetation (i.e., trying different soil treatments and vegetation treatments) could be undertaken since the area will be revegetated in small increments. This is in line with the commitment made by the applicant (on page 10). Provide design details and objectives. Using the test plot approach makes it easier to detect and remedy flaws in the reclamation plan. This approach greatly enhances the prospect of early bond retrieval. These must be included in the SCS letter as requested above.

Since the operator will burn "grubbed" vegetation, how will ashes be incorporated in the sand/silt mix in the ponds?

Rule M-5 - PGL

The bond estimate contains no detail as to what will be the cost for the reclamation. For example, the cost of seed, cost of regrading, respreading of topsoil, monitoring, etc. This should be submitted. An estimate form has been attached for your use.

Rule M-3(2)(c) - PGL

What type of equipment will be used for the operation? Please list the equipment used and locate the generators, tanks, oil tanks, waste oil disposal areas, etc., on the map.

Rule M-3(1)(f) - PGL

Please state the extent of the deposit you will be mining in the Colorado River. Where were test borings or trenches located?

Rule M-10(2)(b) - PGL

How will the trash and scrap and extraneous debris or other materials incident to mining be disposed of? Where?

Rule MK-10(2)(d) - PGL

Where will warning signs be posted to alert the public of trenches, etc.?

Rule M-3(1)(b) - SCL

The applicant must submit a copy of the reassignment of the State leases that were previously held by Willis Ingraham.

Rule M-3(2)(e) - SCL

Mr. Frederick Rogers, representing the property owners, indicated in a May 2 meeting with Division staff that the owners would be responsibile for achieving final grade and seeding the reclaimed area with assistance from the SCS. A written verification of this commitment from the property owners is requested.

Rule M-10(12) - SCL

Since the entire area will be reclaimed for agricultural crops, a success standard based on agricultural productivity of the area must be established. This should include data from nearby fields and/or estimated data from the same soil type. The best source of this information would be the SCS. A letter from the SCS should be submitted giving the potential productivity of the land for each of the crops that may be planted (i.e., barley, rye, alfalfa) after mining.